Gold Quarry Slide – Investigation Project
Status Report 16Jun05

GEOTECHNICAL INVESTIGATION

- Materials Testing:
  Shear testing of the material samples at the laboratories of Call and Nicholas Inc. (CNI) in Tucson, AZ is nearing completion. Preliminary interpretations of the data have been completed. As previously reported, samples from Lift 1 have been sent to Dr. Mesri at the University of Illinois. Mesri Ring Shear tests are in progress.

  Piezometer data are being incorporated into the ongoing 'back analysis' work.

- Test Pit Sampling and Materials Testing: *Additional test pits – at the north side of the slide toe - may be excavated and sampled in the future.*

- Failure Modes Table: *A preliminary Failure Modes Table has been developed and will be soon provided to the Oversight Panel for review.*

- Report: *Previously we had proposed two separate reports: one on the investigation and the other on long-term stability plan. We believe it more effective to combine these two reports. As such, we have changed the title and revised the preliminary table of contents for the report as presented below:*

  Gold Quarry Slide: Geotechnical Investigation, Slide Mechanics Report, and Long-Term Stability Plan

  0. *Executive Summary*
  1. *Introduction*
  2. *Site Investigation and Possible Failure Modes*
  3. *Construction and Operations History*
  4. *Foundation Conditions*
  5. *Geotechnical Properties*
  6. *Failure Mechanism*
  7. *Conclusion*
  8. *Long-Term Stability and Reclamation Plan*
  9. *References*
  10. *Appendices*

  We are working to have a draft report completed and ready for submittal in late Jul05.

STABILIZATION AND REMEDIAL ACTION PLAN

- Environmental Protection and Monitoring: *Stormwater Best Management Practices (BMPs) continue to be regularly inspected and maintained as necessary. Maggie Creek monitoring data have shown no significant differences in monitored*

parameters between the upstream and downstream sites as a result of the slide.

Maggie Creek flows peaked in excess of 800 cfs in May – there is uncertainty in the peak measurement as the USGS gage ratings are not accurate at higher flows. During the high flow period, manual gaging was suspended for personnel safety reasons. Stream discharge has now diminished to 80 to 90 cfs. Routine monitoring of Maggie Creek has ceased. See attached tables for monitoring data collected during the period of 4Mar to 18May05.

- Geotechnical Monitoring: *The robotic theodolite and associated equipment continue to monitor slope movement. Twenty prisms are now being continuously monitored. Minor movements of <0.1 foot for prisms ND5, ND6, ND8, and ND18 were recorded in mid-May; the movements recorded in the slide mass were related to precipitation and infiltration of water into the cracks and dilated material in the failure mass. No significant movement has been observed since 22May05.*

  A wireline (cable) extensometer continues to monitor the peripheral block northwest of the failed mass; no significant slope movement has been observed. The extensometer and associated alarms are tested weekly.

  Piezometer data continue to be collected weekly to determine water pressures within the material mass. Inclinometer data are collected on a bi-weekly frequency.

- Unweighting: *All currently planned unweighting work has been completed.*

- Road Excavation: *Pavement exposure has been completed. Figure 1 shows this activity in progress. Slide material has been removed from the full width of the right-of-way.*

Figure 1. Road (SR766) clearing activities.

Figure 2. Road surface scoring from rocks carried in slide material mass.

As previously reported, a portion of the slide mass 'west' of SR766 was recontoured to 3.5:1(~16 degrees). This slope was based on stability modeling using reasonable water pressure and material strength parameters from historic and recently collected data. Slope stability was assessed and CNI concluded:

> "Based on the assessment of current geotechnical information, and continuous monitoring of the displacements of the Gold Quarry North Dump, Call & Nicholas, Inc. agrees that State Route 766 can be safely reopened. Newmont Mining Corporation will continue to monitor the movements with 24-hour per day robotic surveying and radio telemetered wireline extensometers. Additionally, displacement data from borehole inclinometers will be collected bi-monthly and water level data from piezometers will be collected weekly, to detail whether stability conditions are changing. If displacements indicate adverse slope conditions, Newmont Mining Corporation will stop traffic and advise the appropriate governmental agencies to ensure public safety. At that point, conditions will be evaluated by Newmont personnel and stability experts to determine when safe usage of the road can be continued."

During the week of 13Jun05, Newmont and NDOT assessed the roadway and pavement condition; minor pavement repair was completed and ***SR766 was reopened for traffic on 17June!***

It is proposed that the 'bypass' road be left in place in anticipation of NDOT's scheduled 'pavement preservation' work scheduled for 2007(?). During this scheduled work, the bypass would be used for traffic management.